



DRINKING WATER AND RADIOLOGICAL PROTECTION DIVISION *POLICY AND PROCEDURES*

NUMBER:	DWRP-03-016	
SUBJECT:	GROUTING OF COMMUNITY WATER SUPPLY WELLS	
EFFECTIVE DATE:	DECEMBER 27, 2000	PAGE: 1 OF 3

ISSUE:

The Groundwater Quality Control Rules, adopted pursuant to Section 12714 of Part 127, Water Supply and Sewer Systems, of the Public Health Code, 1978 PA 368, as amended (Act 368), contain provisions for sealing the annular space surrounding a well casing with grout to prevent well contamination and degradation of ground water quality. Rule 822 (R 325.10822) and Rule 832 (R 325.10832) of Part 8 of the administrative rules adopted pursuant to Section 5, MCL 325.1005, of the Safe Drinking Water Act, 1976 PA 399, as amended (Act 399), contain provisions for grouting public water supply wells by a method approved by the Department of Environmental Quality (DEQ). This policy and procedure outlines the approved casing grouting methods for water supply wells and test wells associated with community water supplies (CWSs).

DEFINITIONS:

Community Water Supply – A public water supply which provides year-round service to not less than 15 living units or which regularly provides year-round service to not less than 25 residents. Examples include municipalities, such as cities, villages, and townships; apartment complexes; manufactured housing communities; condominiums; and nursing homes.

Production Well – A well that has been approved for use as a water supply well to serve a CWS in accordance with the provisions of Part 8 of the administrative rules adopted under Act 399.

State Well Construction Code (SWCC) – The administrative rules promulgated pursuant to Section 12714 of Act 368, being R 325.1601 through R 325.1781 of the Michigan Administrative Code.

Test Well – A well that is used to obtain information on ground water quantity, quality, or aquifer characteristics for the purpose of designing or operating a CWS well (i.e., observation well).

POLICY:

The following criteria apply to production wells and test wells that are located within the approved standard isolation area surrounding the completed production well:

1. New production wells or test wells shall be grouted with neat cement, neat cement/bentonite admixture, or concrete grout pursuant to the provisions of the SWCC (copy attached).
2. The Drinking Water and Radiological Protection Division's (DWRPD's) District Engineer may allow the use of bentonite grouts on production wells and test wells where the pumping rate of the permanent pump installed in the production well is to be less than 100 gallons per minute.

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NUMBER:	DWRP-03-016	
SUBJECT:	GROUTING OF COMMUNITY WATER SUPPLY WELLS	
EFFECTIVE DATE:	DECEMBER 27, 2000	PAGE: 2 of 3

3. Production wells or test wells that are flowing (artesian), or that discharge subterranean gases, shall be grouted with neat cement, neat cement/bentonite admixture, or concrete grout.
4. The DWRPD may allow the use of low heat-of-hydration cement (ASTM Type IV) for grouting production wells or test wells constructed with PVC plastic well casing.

Note: Where low heat-of-hydration cement is not used and the borehole is over 4 inches larger than the nominal casing size, PVC plastic well casing with a standard dimension ratio (SDR) of 17 is recommended. The risk of casing distortion or collapse due to increased temperature from the heat-of-hydration cement is low. However, SDR 17 PVC plastic well casing provides added protection due to its thicker wall and greater resistance to hydraulic collapse. The hydraulic collapse pressure for SDR 17 pipe is 224 pounds per square inch (psi), compared to 115 psi for SDR 21 pipe.

5. Requests to use cement grout additives or admixtures other than that specified in the SWCC shall be submitted for review to the District Engineer and shall be approved before use.
6. All production wells and test wells shall be grouted pursuant to the provisions of the SWCC and this policy and procedure. Test wells that are not grouted pursuant to the provisions of this policy and procedure will not be approved by the District Engineer for conversion to a production well and shall be plugged in accordance with the abandoned well plugging provisions of the SWCC.
7. A test well shall not be converted to a production well if there are test wells located within the standard isolation area surrounding the proposed production well that have not been grouted pursuant to the provisions of this policy, until those test wells have been properly sealed.

PROCEDURE:

Responsibility

DWRPD's District Engineer

Action

Incorporates this policy and procedure as part of the permit to construct a CWS well and uses this policy and procedure to evaluate proposals from consulting engineers, developers, and water well drilling contractors.

Plans, specifications, and/or permit applications which are inadequate or which contain criteria in conflict with the specifications contained herein will be returned to the sender.

This policy and procedure replaces the Michigan Department of Public Health memorandum dated May 17, 1988 entitled "Guidelines for Grouting Type I Wells."

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EFFECTIVE DATE: DECEMBER 27, 2000

PAGE: 3 of 3

Responsibility

CWS owner or owner's representative (e.g., consulting engineer)

Action

Provide project oversight to ensure that the CWS meets the DEQ's regulations and permit provisions.

APPROVED: _____

Flint C. Watt, P.E., Chief

Drinking Water and Radiological Protection Division

DATE: _____